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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TAYLOR, BARRY W

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 12/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/895,171

Applicant(s)

HUIE, DAVID L.

Examiner

Barry W Taylor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41, 43-52 and 54-82 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41, 43-52 and 54-82 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 50-52 are objected to because of the following informalities: Claims 50-52 recite the limitation of "method of claim 42". Applicant's Amendment "A", paper number 5, dated 9/23/03 has canceled claim 42. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 and 81-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akinpelu et al (5,475,749 hereinafter Akinpelu) in view of Bunge et al (5,896,447 hereinafter Bunge) further in view of Roadifer et al (6,430,277 hereinafter Roadifer).

Regarding claims 1 and 81-82. Akinpelu discloses the U.S. telecommunications network is in a state of transition. During the next several years it is expected that the monopoly held by local exchange carriers will be substantially altered and that competitive access providers (CAPs) will begin to offer customer access to the inter-exchange carriers, local exchange service, or both. Akinpelu also discloses that in order to accomplish this goal, location number portability is provided (columns 1-4 and figure 1). Akinpelu discloses accommodates ported directory numbers via a location

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routing number (LRN) scheme in which each central office switch in the public-switched telephone network is identified by a unique set of "NPA-NXX" digits (columns 3-7).

However, Akinpelu is silent with respect to processing telephone numbers prior to connecting the call. In other words, Akinpelu focuses on routing the telephone call to ported directory number.

Bunge improves on the teachings of Akinpelu (columns 1-2) by obtaining LRN data associated with a dialed directory number prior to initiating call blocking controls (col. 2 lines 25-30). Bunge discloses all switches in the telecommunications system are initialized with a call blocking control which utilizes an originating switch's query of a number portability database prior to processing calls and as a result, LRN data associated with ported directory numbers is retrieved, and analyzed, to determine whether the ported directory number is actually subject to the initialized call blocking control (columns 2-6).

Applicants content that Akinpelu in view of Bung fail to account for switchless resellers (see Amendment "A", paper number 5, dated 9/23/03).

Roadifer teaches a method and system for determining switchless resellers that use toll free destination numbers (i.e. "800", "877" or "888" "1010-xxx", col. 7 line 59 – col. 8 line 4) and according to the Federal Communications Commission requires that the owner of the number compensate the owner of the equipment used for completing the telephone call (col. 1 lines 15-63). Roadifer determines the CIC (i.e. Carrier Identification Code) associated with each call based on ANI-related information. Once

the CIC is known, another database is accessed to determine the known owner of the CIC so that the owner of the equipment may be compensated (col. 2 lines 3-12).

Roadifer discloses using a database to store the CIC and associated ANI-related information (see database 66 figure 2). Roadifier discloses database 66 also contains information for a large private pay phone vender having separate entities with which it contracts to handle the pay telephones of those separate entities (col. 5 lines 18-37). Roadifer discloses database 66 information is segregated into switchless resellers destination numbers (e.g. "800," "888," "877," "950" or "1010" number or the like buy using parser (see parser 64 figure 2, col. 9 lines 29-37).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of the invention to modify the number portability databases as taught by Akinpelu in view of Bunge to include information relating to "800" numbers and the like as taught by Roadifer for the benefit of determining switchless reseller numbers so that the owners of the equipment used in making the telephone call may be compensated by the switchless resellers.

Regarding claims 2-3. Akinpelu does not explicitly show blocking ported number.

Bunge improves on the teachings of Akinpelu (columns 1-2) by obtaining LRN data associated with a dialed directory number prior to initiating call blocking controls (col. 2 lines 25-30). Bunge discloses all switches in the telecommunications system are initialized with a call blocking control which utilizes an originating switch's query of a number portability database prior to processing calls and as a result, LRN data

associated with ported directory numbers is retrieved, and analyzed, to determine whether the ported directory number is actually subject to the initialized call blocking control (columns 2-6).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of the invention to modify the number portability databases as taught by Akinpelu in view of Bunge to include information relating to "800" numbers and the like as taught by Roadifer for the benefit of determining switchless reseller numbers so that the owners of the equipment used in making the telephone call may be compensated by the switchless resellers.

3. Claims 11-15, 65, 70 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akinpelu et al (5,475,749 hereinafter Akinpelu) in view of Atkins (5,699,416) further in view of Roadifer et al (6,430,277 hereinafter Roadifer).

Regarding claims 11, 65, 70 and 80. Akinpelu discloses the U.S. telecommunications network is in a state of transition. During the next several years it is expected that the monopoly held by local exchange carriers will be substantially altered and that competitive access providers (CAPs) will begin to offer customer access to the inter-exchange carriers, local exchange service, or both. Akinpelu also discloses that in order to accomplish this goal, location number portability is provided (columns 1-4 and figure 1). Akinpelu discloses accommodates ported directory numbers via a location routing number (LRN) scheme in which each central office

switch in the public-switched telephone network is identified by a unique set of "NPA-NXX" digits (columns 3-7).

However, Akinpelu is silent with respect to determining billing relationship between carriers. In other words, Akinpelu focuses on routing the telephone call to ported directory number.

Atkins improves on the teachings of Akinpelu (columns 1-8) wherein Atkins realizes that although Akinpelu application minimizes the overall inconvenience and impact of number portability on the current network by using NPA-NXX digits to identify central office switches that serve ported directory numbers, it does not address the impact that number portability has on another important component of the network which conventionally uses directory numbers for processing (column 2). Atkins discloses, operator-assisted calls are handled by an operator services system (OSS) to accommodate various call billing arrangements including calls billed to a called party (a "collect call"), calls billed to a third party, and calls billed to a calling card and ported directory numbers complicate OSS processing since billing verification is dependent upon routing a billing validation request to a line identification (ID) database based on the directory number to be billed (column 2). Therefore, Atkins discloses since validating all types of billing to ensure receipt of revenue is a primary objective of every service provider, the inability to bill and receive revenue for calls billed to ported directory number accounts is an unacceptable result. To properly bill calls to ported directory numbers accounts, an OSS must be capable of efficiently and accurately determining the line ID database that contains the authorization for billing data

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associated with the directory number account to be billed (columns 2-8). Subsequently, a billing record (i.e. CDR) relating to the call is created for delivery to billing system (120 figure 1) and in the case a call from the caller is routed via PSTN (190 figure 1), to a called party at telephone (182 figure 1) and the ported card directory number account is ultimately charged for the call (figures 1-2, column 5 line 50 – column 8 line 50).

Applicants content that Akinpelu in view of Atkins fail to account for switchless resellers (see Amendment "A", paper number 5, dated 9/23/03).

Roadifer teaches a method and system for determining switchless resellers that use toll free destination numbers (i.e. "800", "877" or "888" "1010-xxx", col. 7 line 59 – col. 8 line 4) and according to the Federal Communications Commission requires that the owner of the number compensate the owner of the equipment used for completing the telephone call (col. 1 lines 15-63). Roadifer determines the CIC (i.e. Carrier Identification Code) associated with each call based on ANI-related information. Once the CIC is known, another database is accessed to determine the known owner of the CIC so that the owner of the equipment may be compensated (col. 2 lines 3-12). Roadifer discloses using a database to store the CIC and associated ANI-related information (see database 66 figure 2). Roadifier discloses database 66 also contains information for a large private pay phone vender having separate entities with which it contracts to handle the pay telephones of those separate entities (col. 5 lines 18-37). Roadifer discloses database 66 information is segregated into switchless resellers

destination numbers (e.g. "800," "888," "877," "950" or "1010" number or the like buy using parser (see parser 64 figure 2, col. 9 lines 29-37).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of the invention to modify the number portability databases as taught by Akinpelu in view of Atkins to include information relating to "800" numbers and the like as taught by Roadifer for the benefit of determining switchless reseller numbers so that the owners of the equipment used in making the telephone call may be compensated by the switchless resellers.

Regarding claims 12-13. Akinpelu is silent with respect to determining billing relationship between carriers.

Atkins improves on the teachings of Akinpelu (columns 1-8) wherein Atkins realizes that although Akinpelu application minimizes the overall inconvenience and impact of number portability on the current network by using NPA-NXX digits to identify central office switches that serve ported directory numbers, it does not address the impact that number portability has on another important component of the network which conventionally uses directory numbers for processing (column 2). Atkins discloses, operator-assisted calls are handled by an operator services system (OSS) to accommodate various call billing arrangements including calls billed to a called party (a "collect call"), calls billed to a third party, and calls billed to a calling card and ported directory numbers complicate OSS processing since billing verification is dependent upon routing a billing validation request to a line identification (ID) database based on

the directory number to be billed (column 2). Therefore, Atkins discloses since validating all types of billing to ensure receipt of revenue is a primary objective of every service provider, the inability to bill and receive revenue for calls billed to ported directory number accounts is an unacceptable result. To properly bill calls to ported directory numbers accounts, an OSS must be capable of efficiently and accurately determining the line ID database that contains the authorization for billing data associated with the directory number account to be billed (columns 2-8). Subsequently, a billing record (i.e. CDR) relating to the call is created for delivery to billing system (120 figure 1) and in the case a call from the caller is routed via PSTN (190 figure 1), to a called party at telephone (182 figure 1) and the ported card directory number account is ultimately charged for the call (figures 1-2, column 5 line 50 – column 8 line 50).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of the invention to modify the number portability databases as taught by Akinpelu in view of Atkins to include information relating to “800” numbers and the like as taught by Roadifer for the benefit of determining switchless reseller numbers so that the owners of the equipment used in making the telephone call may be compensated by the switchless resellers.

Regarding claims 14-15. Akinpelu is silent with respect to collect and third party call.

Atkins improves on the teachings of Akinpelu (columns 1-8) wherein Atkins realizes that although Akinpelu application minimizes the overall inconvenience and

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impact of number portability on the current network by using NPA-NXX digits to identify central office switches that serve ported directory numbers, it does not address the impact that number portability has on another important component of the network which conventionally uses directory numbers for processing (column 2). Atkins discloses, operator-assisted calls are handled by an operator services system (OSS) to accommodate various call billing arrangements including calls billed to a called party (a "collect call"), calls billed to a third party, and calls billed to a calling card and ported directory numbers complicate OSS processing since billing verification is dependent upon routing a billing validation request to a line identification (ID) database based on the directory number to be billed (column 2). Therefore, Atkins discloses since validating all types of billing to ensure receipt of revenue is a primary objective of every service provider, the inability to bill and receive revenue for calls billed to ported directory number accounts is an unacceptable result. To properly bill calls to ported directory numbers accounts, an OSS must be capable of efficiently and accurately determining the line ID database that contains the authorization for billing data associated with the directory number account to be billed (columns 2-8). Subsequently, a billing record (i.e. CDR) relating to the call is created for delivery to billing system (120 figure 1) and in the case a call from the caller is routed via PSTN (190 figure 1), to a called party at telephone (182 figure 1) and the ported card directory number account is ultimately charged for the call (figures 1-2, column 5 line 50 – column 8 line 50).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of the invention to modify the number portability databases as taught by

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Akinpelu in view of Atkins to include information relating to "800" numbers and the like as taught by Roadifer for the benefit of determining switchless reseller numbers so that the owners of the equipment used in making the telephone call may be compensated by the switchless resellers.

4. Claims 16-20, 66-69 and 71-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akinpelu et al (hereinafter Akinpelu) in view of Atkins (5,699,416) and Roadifer et al (6,430,277 hereinafter Roadifer), further in view of Bunge et al (5,896,447 hereinafter Bunge)

Regarding claims 16-17, 66-69 and 71-74. Akinpelu in view of Atkins and Roadifer is silent with respect to blocking telephone number.

Roadifer teaches a method and system for determining switchless resellers that use toll free destination numbers (i.e. "800", "877" or "888" "1010-xxx", col. 7 line 59 – col. 8 line 4) and according to the Federal Communications Commission requires that the owner of the number compensate the owner of the equipment used for completing the telephone call (col. 1 lines 15-63). Roadifer determines the CIC (i.e. Carrier Identification Code) associated with each call based on ANI-related information. Once the CIC is known, another database is accessed to determine the known owner of the CIC so that the owner of the equipment may be compensated (col. 2 lines 3-12). Roadifer discloses using a database to store the CIC and associated ANI-related information (see database 66 figure 2). Roadifer discloses database 66 also contains

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information for a large private pay phone vender having separate entities with which it contracts to handle the pay telephones of those separate entities (col. 5 lines 18-37). Roadifer discloses database 66 information is segregated into switchless resellers destination numbers (e.g. "800," "888," "877," "950" or "1010" number or the like buy using parser (see parser 64 figure 2, col. 9 lines 29-37).

Bunge improves on the teachings of Akinpelu (columns 1-2) by obtaining LRN data associated with a dialed directory number prior to initiating call blocking controls (col. 2 lines 25-30). Bunge discloses all switches in the telecommunications system are initialized with a call blocking control which utilizes an originating switch's query of a number portability database prior to processing calls and as a result, LRN data associated with ported directory numbers is retrieved, and analyzed, to determine whether the ported directory number is actually subject to the initialized call blocking control (columns 2-6).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of the invention to modify the number portability databases as taught by Akinpelu in view of Atkins to include information relating to "800" numbers and the like as taught by Roadifer so that all switches may be initialized in the telecommunications system as taught by Bunge for the benefit of retrieving and analyzing the LRN associated with the ported telephone number to determine whether the ported telephone number is subject to initialized call blocking control as taught by Bunge.

Regarding claims 18-19. Akinpelu is silent with respect to redirecting the telephone call to an operator.

Atkins also improves on the teachings of Akinpelu (columns 1-8) wherein Atkins realizes that although Akinpelu application minimizes the overall inconvenience and impact of number portability on the current network by using NPA-NXX digits to identify central office switches that serve ported directory numbers, it does not address the impact that number portability has on another important component of the network which conventionally uses directory numbers for processing (column 2). Atkins discloses, operator-assisted calls are handled by an operator services system (OSS) to accommodate various call billing arrangements including calls billed to a called party (a "collect call"), calls billed to a third party, and calls billed to a calling card and ported directory numbers complicate OSS processing since billing verification is dependent upon routing a billing validation request to a line identification (ID) database based on the directory number to be billed (column 2). Therefore, Atkins discloses since validating all types of billing to ensure receipt of revenue is a primary objective of every service provider, the inability to bill and receive revenue for calls billed to ported directory number accounts is an unacceptable result. To properly bill calls to ported directory numbers accounts, an OSS must be capable of efficiently and accurately determining the line ID database that contains the authorization for billing data associated with the directory number account to be billed (columns 2-8). Subsequently, a billing record (i.e. CDR) relating to the call is created for delivery to billing system (120 figure 1) and in the case a call from the caller is routed via PSTN (190 figure 1), to a

called party at telephone (182 figure 1) and the ported card directory number account is ultimately charged for the call (figures 1-2, column 5 line 50 – column 8 line 50).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of the invention to modify the number portability databases as taught by Akinpelu in view of Atkins to include information relating to “800” numbers and the like as taught by Roadifer so that all switches may be initialized in the telecommunications system as taught by Bunge for the benefit of retrieving and analyzing the LRN associated with the ported telephone number to determine whether the ported telephone number is subject to initialized call blocking control as taught by Bunge.

Regarding claim 20. Akinpelu is silent with respect to CDR.

Atkins also improves on the teachings of Akinpelu (columns 1-8) wherein Atkins realizes that although Akinpelu application minimizes the overall inconvenience and impact of number portability on the current network by using NPA-NXX digits to identify central office switches that serve ported directory numbers, it does not address the impact that number portability has on another important component of the network which conventionally uses directory numbers for processing (column 2). Atkins discloses, operator-assisted calls are handled by an operator services system (OSS) to accommodate various call billing arrangements including calls billed to a called party (a “collect call”), calls billed to a third party, and calls billed to a calling card and ported directory numbers complicate OSS processing since billing verification is dependent upon routing a billing validation request to a line identification (ID) database based on

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the directory number to be billed (column 2). Therefore, Atkins discloses since validating all types of billing to ensure receipt of revenue is a primary objective of every service provider, the inability to bill and receive revenue for calls billed to ported directory number accounts is an unacceptable result. To properly bill calls to ported directory numbers accounts, an OSS must be capable of efficiently and accurately determining the line ID database that contains the authorization for billing data associated with the directory number account to be billed (columns 2-8). Subsequently, a billing record (i.e. CDR) relating to the call is created for delivery to billing system (120 figure 1) and in the case a call from the caller is routed via PSTN (190 figure 1), to a called party at telephone (182 figure 1) and the ported card directory number account is ultimately charged for the call (column 5 line 50 – column 8 line 50).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of the invention to modify the number portability databases as taught by Akinpelu in view of Atkins to include information relating to “800” numbers and the like as taught by Roadifer so that all switches may be initialized in the telecommunications system as taught by Bunge for the benefit of retrieving and analyzing the LRN associated with the ported telephone number to determine whether the ported telephone number is subject to initialized call blocking control as taught by Bunge.

5. Claims 4-6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akinpelu et al (hereinafter Akinpelu) in view of Bunge et al (5,896,447 hereinafter

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Bunge) in view of Roadifer et al (6,430,277 hereinafter Roadifer), further in view of Atkins (5,699,416).

Regarding claims 4-6. Akinpelu in view of Bunge, in view of Roadifer is silent with respect to redirecting the telephone call to an operator.

Atkins also improves on the teachings of Akinpelu (columns 1-8) wherein Atkins realizes that although Akinpelu application minimizes the overall inconvenience and impact of number portability on the current network by using NPA-NXX digits to identify central office switches that serve ported directory numbers, it does not address the impact that number portability has on another important component of the network which conventionally uses directory numbers for processing (column 2). Atkins discloses, operator-assisted calls are handled by an operator services system (OSS) to accommodate various call billing arrangements including calls billed to a called party (a "collect call"), calls billed to a third party, and calls billed to a calling card and ported directory numbers complicate OSS processing since billing verification is dependent upon routing a billing validation request to a line identification (ID) database based on the directory number to be billed (column 2). Therefore, Atkins discloses since validating all types of billing to ensure receipt of revenue is a primary objective of every service provider, the inability to bill and receive revenue for calls billed to ported directory number accounts is an unacceptable result. To properly bill calls to ported directory numbers accounts, an OSS must be capable of efficiently and accurately determining the line ID database that contains the authorization for billing data associated with the directory number account to be billed (columns 2-8). Subsequently,

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a billing record (i.e. CDR) relating to the call is created for delivery to billing system (120 figure 1) and in the case a call from the caller is routed via PSTN (190 figure 1), to a called party at telephone (182 figure 1) and the ported card directory number account is ultimately charged for the call (figures 1-2, column 5 line 50 – column 8 line 50).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of the invention to modify the number portability databases as taught by Akinpelu in view of Bunge to include information relating to “800” numbers and the like as taught by Roadifer to further include an operator service system as taught by Atkins for the benefit of expanding the telephone system to include operator service.

Regarding claim 10. Akinpelu in view of Bunge, in view of Roadifer is silent with respect to CDR.

Atkins also improves on the teachings of Akinpelu (columns 1-8) wherein Atkins realizes that although Akinpelu application minimizes the overall inconvenience and impact of number portability on the current network by using NPA-NXX digits to identify central office switches that serve ported directory numbers, it does not address the impact that number portability has on another important component of the network which conventionally uses directory numbers for processing (column 2). Atkins discloses, operator-assisted calls are handled by an operator services system (OSS) to accommodate various call billing arrangements including calls billed to a called party (a “collect call”), calls billed to a third party, and calls billed to a calling card and ported directory numbers complicate OSS processing since billing verification is dependent

upon routing a billing validation request to a line identification (ID) database based on the directory number to be billed (column 2). Therefore, Atkins discloses since validating all types of billing to ensure receipt of revenue is a primary objective of every service provider, the inability to bill and receive revenue for calls billed to ported directory number accounts is an unacceptable result. To properly bill calls to ported directory numbers accounts, an OSS must be capable of efficiently and accurately determining the line ID database that contains the authorization for billing data associated with the directory number account to be billed (columns 2-8). Subsequently, a billing record (i.e. CDR) relating to the call is created for delivery to billing system (120 figure 1) and in the case a call from the caller is routed via PSTN (190 figure 1), to a called party at telephone (182 figure 1) and the ported card directory number account is ultimately charged for the call (column 5 line 50 – column 8 line 50).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of the invention to modify the number portability databases as taught by Akinpelu in view of Bunge to include information relating to “800” numbers and the like as taught by Roadifer to further include an operator service system as taught by Atkins for the benefit of expanding the telephone system to include operator service.

6. Claims 21-41, 43-52, 54-64 and 75-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akinpelu et al (hereinafter Akinpelu) in view of Atkins (5,699,416) in view of Roadifer et al (6,430,277 hereinafter Roadifer) further in view of Winstead et al (6,430,274 hereinafter Winstead).

Regarding claims 21-24, 27-28, 29-32, 35-39, 41, 44-47, 49-50, 56-59 and 61-62. Akinpelu discloses the U.S. telecommunications network is in a state of transition. During the next several years it is expected that the monopoly held by local exchange carriers will be substantially altered and that competitive access providers (CAPs) will begin to offer customer access to the inter-exchange carriers, local exchange service, or both. Akinpelu also discloses that in order to accomplish this goal, location number portability is provided (columns 1-4 and figure 1). Akinpelu discloses accommodates ported directory numbers via a location routing number (LRN) scheme in which each central office switch in the public-switched telephone network is identified by a unique set of "NPA-NXX" digits (columns 3-7).

Atkins improves on the teachings of Akinpelu (columns 1-8) wherein Atkins realizes that although Akinpelu application minimizes the overall inconvenience and impact of number portability on the current network by using NPA-NXX digits to identify central office switches that serve ported directory numbers, it does not address the impact that number portability has on another important component of the network which conventionally uses directory numbers for processing (column 2). Atkins discloses, operator-assisted calls are handled by an operator services system (OSS) to accommodate various call billing arrangements including calls billed to a called party (a "collect call"), calls billed to a third party, and calls billed to a calling card and ported directory numbers complicate OSS processing since billing verification is dependent upon routing a billing validation request to a line identification (ID) database based on the directory number to be billed (column 2). Therefore, Atkins discloses since

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validating all types of billing to ensure receipt of revenue is a primary objective of every service provider, the inability to bill and receive revenue for calls billed to ported directory number accounts is an unacceptable result. To properly bill calls to ported directory numbers accounts, an OSS must be capable of efficiently and accurately determining the line ID database that contains the authorization for billing data associated with the directory number account to be billed (columns 2-8). Subsequently, a billing record (i.e. CDR) relating to the call is created for delivery to billing system (120 figure 1) and in the case a call from the caller is routed via PSTN (190 figure 1), to a called party at telephone (182 figure 1) and the ported card directory number account is ultimately charged for the call (figures 1-2, column 5 line 50 – column 8 line 50).

Roadifer teaches a method and system for determining switchless resellers that use toll free destination numbers (i.e. "800", "877" or "888" "1010-xxx", col. 7 line 59 – col. 8 line 4) and according to the Federal Communications Commission requires that the owner of the number compensate the owner of the equipment used for completing the telephone call (col. 1 lines 15-63). Roadifer determines the CIC (i.e. Carrier Identification Code) associated with each call based on ANI-related information. Once the CIC is known, another database is accessed to determine the known owner of the CIC so that the owner of the equipment may be compensated (col. 2 lines 3-12). Roadifer discloses using a database to store the CIC and associated ANI-related information (see database 66 figure 2). Roadifier discloses database 66 also contains information for a large private pay phone vender having separate entities with which it contracts to handle the pay telephones of those separate entities (col. 5 lines 18-37).

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Roadifer discloses database 66 information is segregated into switchless resellers destination numbers (e.g. "800," "888," "877," "950" or "1010" number or the like buy using parser (see parser 64 figure 2, col. 9 lines 29-37).

Akinpelu in view of in view of Akins, in view of Roadifer is silent with respect to detecting fraud related to collect calls.

Winstead teaches validation query based on supervisory signal wherein the telephone system delays authorization validation queries until after a called party accepts a telephone call. Winstead discloses that queries are avoided not only in cases where the called party line is busy or not answering, but also in cases where the called party declines to accept the charges (columns 1-10). Winstead discloses that while Line Information Databases (LIDBs) reduce losses associated with alternative billing schemes, they come with a heavy price because every validation query, regardless of whether authorization is granted, the phone company is charged a query fee and for some telephone companies these fees can run into the tens of millions of dollars per month. Winstead discloses that correctional facilities are of great concern because a great number of "collect" calls are made from them and correctional facility phones are notoriously known for a high rate of premature terminated calls. Since each LIBs query is billable to the requesting telephone company, a large number of LIDB charges are incurred without a subsequent billable event. Therefore, when a caller initiates a collect call, a local Negative database is queried, then a local Fraud or BNS database query is executed, then followed by a query to an external LIDB. Winstead discloses that the

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present invention eliminates most if not all of the above-described unnecessary LIDB and Fraud database queries by delaying such queries at least until the called party accepts the collect call charges (columns 5-7).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of the invention to modify the number portability databases as taught by Akinpelu in view of Atkins to include information relating to "800" numbers and the like as taught by Roadifer to further include fraud or BNS database authorization validation as taught by Winstead for the benefit of blocking telephone numbers that have a negative payment history.

Regarding claims 25, 33, and 40. Akinpelu is silent with respect to redirecting the telephone call to an operator.

Atkins also improves on the teachings of Akinpelu (columns 1-8) wherein Atkins realizes that although Akinpelu application minimizes the overall inconvenience and impact of number portability on the current network by using NPA-NXX digits to identify central office switches that serve ported directory numbers, it does not address the impact that number portability has on another important component of the network which conventionally uses directory numbers for processing (column 2). Atkins discloses, operator-assisted calls are handled by an operator services system (OSS) to accommodate various call billing arrangements including calls billed to a called party (a "collect call"), calls billed to a third party, and calls billed to a calling card and ported

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directory numbers complicate OSS processing since billing verification is dependent upon routing a billing validation request to a line identification (ID) database based on the directory number to be billed (column 2). Therefore, Atkins discloses since validating all types of billing to ensure receipt of revenue is a primary objective of every service provider, the inability to bill and receive revenue for calls billed to ported directory number accounts is an unacceptable result. To properly bill calls to ported directory numbers accounts, an OSS must be capable of efficiently and accurately determining the line ID database that contains the authorization for billing data associated with the directory number account to be billed (columns 2-8). Subsequently, a billing record (i.e. CDR) relating to the call is created for delivery to billing system (120 figure 1) and in the case a call from the caller is routed via PSTN (190 figure 1), to a called party at telephone (182 figure 1) and the ported card directory number account is ultimately charged for the call (figures 1-2, column 5 line 50 – column 8 line 50).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of the invention to modify the number portability databases as taught by Akinpelu in view of Atkins to include information relating to “800” numbers and the like as taught by Roadifer to further include fraud or BNS database authorization validation as taught by Winstead for the benefit of blocking telephone numbers that have a negative payment history.

Regarding claim 26 and 34. Akinpelu in view of in view of Akins is silent with respect to alternative billing.

Winstead teaches validation query based on supervisory signal wherein the telephone system delays authorization validation queries until after a called party accepts a telephone call. Winstead discloses that queries are avoided not only in cases where the called party line is busy or not answering, but also in cases where the called party declines to accept the charges (columns 1-10). Winstead discloses that while Line Information Databases (LIDBs) reduce losses associated with alternative billing schemes, they come with a heavy price because every validation query, regardless of whether authorization is granted, the phone company is charged a query fee and for some telephone companies these fees can run into the tens of millions of dollars per month. Winstead discloses that correctional facilities are of great concern because a great number of "collect" calls are made from them and correctional facility phones are notoriously known for a high rate of premature terminated calls. Since each LIBs query is billable to the requesting telephone company, a large number of LIDB charges are incurred without a subsequent billable event. Therefore, when a caller initiates a collect call, a local Negative database is queried, then a local Fraud or BNS database query is executed, then followed by a query to an external LIDB. Winstead discloses that the present invention eliminates most if not all of the above-described unnecessary LIDB and Fraud database queries by delaying such queries at least until the called party accepts the collect call charges (columns 5-7).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of the invention to modify the number portability databases as taught by Akinpelu in view of Atkins to include information relating to "800" numbers and the like

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as taught by Roadifer to further include fraud or BNS database authorization validation as taught by Winstead for the benefit of blocking telephone numbers that have a negative payment history.

Regarding claims 43, 51-52, 54, and 63-64. Winstead teaches validating credit account, credit history, credit score (col. 1 lines 19-67, col. 2 lines 1-67, col. 3 lines 1-67 and columns 5-8).

Regarding claims 48, 55, and 60. Winstead teaches validating credit account that inherently and/or obviously uses credit information before collect call is allowed to be made (col. 1 lines 19-67, col. 2 lines 1-67, col. 3 lines 1-67 and columns 5-8).

Regarding claims 75-79. Winstead teaches validating credit account, credit history, etc (col. 1 lines 19-67, col. 2 lines 1-67, col. 3 lines 1-67 and columns 5-8).

7. Claims 7-9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akinpelu et al (hereinafter Akinpelu) in view of Bunge et al (5,896,447 hereinafter Bunge) in view of Atkins (5,699,416) in view of Roadifer (6,430,277 hereinafter Roadifer) further in view of Winstead et al (6,430,274 hereinafter Winstead).

Regarding claims 7-9. Akinpelu in view of Bunge, in view of Roadifer and Atkins is silent with respect to blocking collect calls.

Winstead teaches validation query based on supervisory signal wherein the telephone system delays authorization validation queries until after a called party accepts a telephone call. Winstead discloses that queries are avoided not only in cases

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where the called party line is busy or not answering, but also in cases where the called party declines to accept the charges (columns 1-10). Winstead discloses that while Line Information Databases (LIDBs) reduce losses associated with alternative billing schemes, they come with a heavy price because every validation query, regardless of whether authorization is granted, the phone company is charged a query fee and for some telephone companies these fees can run into the tens of millions of dollars per month. Winstead discloses that correctional facilities are of great concern because a great number of "collect" calls are made from them and correctional facility phones are notoriously known for a high rate of premature terminated calls. Since each LIBs query is billable to the requesting telephone company, a large number of LIDB charges are incurred without a subsequent billable event. Therefore, when a caller initiates a collect call, a local Negative database is queried, then a local Fraud or BNS database query is executed, then followed by a query to an external LIDB. Winstead discloses that the present invention eliminates most if not all of the aboved-described unnecessary LIDB and Fraud database queries by delaying such queries at least until the called party accepts the collect call charges (columns 5-7).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of the invention to modify the number portability databases as taught Akinpelu in view of Bunge, in view of Roadifer and Atkins to include fraud or BNS database authorization validation as taught by Winstead for the benefit of blocking telephone numbers that have a negative payment history.

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Conclusion


Response to Arguments

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry W. Taylor whose telephone number is (703) 305-4811. The examiner can normally be reached on Monday-Friday from 6:30am to 4pm.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703) 305-4708. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Technology Center 2600 customer service Office whose telephone number is (703) 306-0377.

Applicant's arguments with respect to claims 1-82 have been considered but are moot in view of the new ground(s) of rejection.


CURTIS KUNTZ
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TECHNOLOGY CENTER 2600